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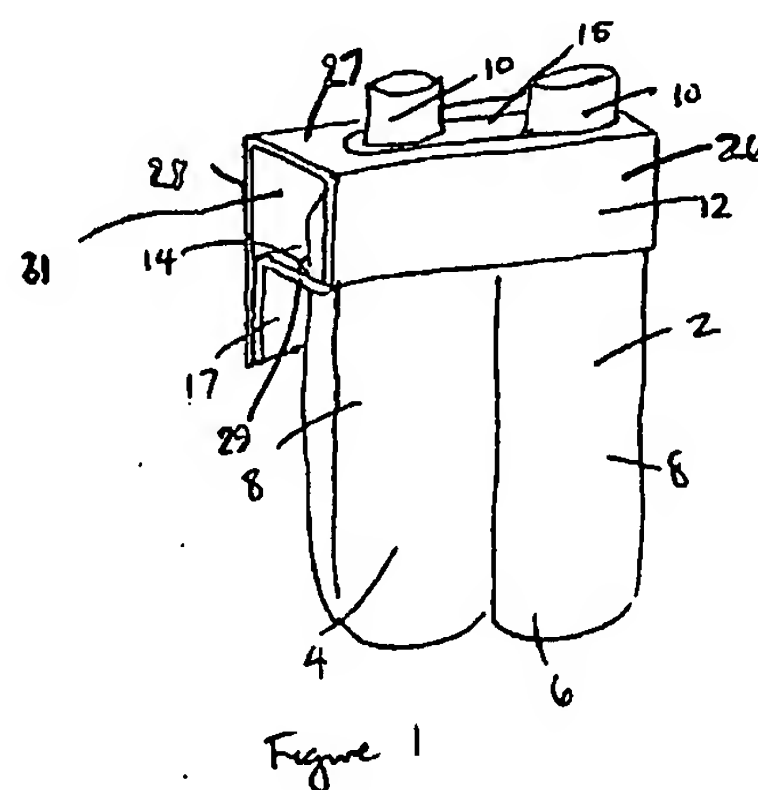
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(54) **Package sleeve**

(57) A package (2) for holding at least two articles (4, 6) in mutual location by a sleeve (12) formed of board material. The sleeve (12) has location means (14, 15) for each of the articles (4, 6) to allow for the retention of a portion of the articles (4, 6) in the location means (14, 15) to form the package (2). The sleeve (12) can preferably be formed of corrugated board material.



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Description

[0001] The invention to which this application relates is a sleeve which allows a package of a plurality of articles to be created by the location of the articles in the sleeve. The articles can typically be held in the sleeve for the purpose of display for retail purposes and the retention of the same as a package during purchase and transport of the same.

[0002] At the present time there is a tendency in retail premises for a number of articles to be grouped and held together as a package for the purpose of a number of articles being sold as one package. Typically the package of the number of articles will be sold at a relatively cheaper price such that each article in the package is at a cheaper price than would be the case if the articles were sold individually. Because of the need to price the same as one package there is a need to ensure that the articles are retained together between packaging, display and purchase. At present many articles, and in particular cylindrical articles such as aerosol containers are held together by wrapping them together in sheet plastic material which allows the printing on the container to be viewable but only has limited possibilities for printing additional material on the plastic sheet. The use of the plastic sheet material is also environmentally undesirable and can be expensive but at the present time is regarded as the only viable option.

[0003] The aim of the present invention is to provide a package which contains at least two articles, said articles held together as a package by a sleeve formed of board material and thereby overcome the need for the sheet plastic material to be used to hold the articles together but which avoids the need for the articles to be contained in a box like structure.

[0004] In a first aspect of the invention there is provided a package for holding at least two articles in mutual location by a sleeve said sleeve having location means for each of said articles, said sleeve formed from board material and characterised in that said sleeve is formed with spaced front and rear walls, linked by spaced top and bottom walls, said location means formed in at least one of the walls, and a portion of each of the articles lies within the space defined by the front, rear, top and bottom walls.

[0005] In one embodiment the sleeve is formed of a corrugated board material. In one preferred embodiment the material comprises first and second spaced outer layers of paper or board and, intermediate said layers is provided a corrugated shaped layer of paper or board material which contacts, and may also be adhered with, at spaced intervals, the inner faces of the first and second outer layers. This corrugated board material is found to have a significantly greater strength to thickness ratio than conventional single ply board material.

[0006] In one embodiment the sleeve is used to form a package comprising at least two cylindrical arti-

cles and the sleeve is provided with location means in the form of an aperture or apertures and through which a portion of the respective articles pass and are retained so as to form the package. In one preferred embodiment the sleeve includes a retaining means adjacent the location means, and said retaining means are movable to a position which, when the articles are located in the location means contacts the articles and/or reduces the location means size so as to provide a locking effect on the article in the sleeve.

[0007] In one embodiment the sleeve is provided such that at least a portion of one of the walls is formed into a double layer thickness to provide increased rigidity by attaching, such as by adhering or otherwise locating, together two portions of the sleeve.

[0008] In a further aspect of the invention there is provided a sleeve blank for a package for holding at least two articles in mutual location, said sleeve blank including location means for said at least two articles, characterised in that said sleeve blank includes portions for spaced top and bottom walls and portions for front and rear walls so that when said sleeve blank is erected, a portion of each of the articles can be located within the space defined between the front, rear, top and bottom walls and held in position by the location means.

[0009] Typically therefore the sleeve blank includes location means for at least two articles, retaining means for locking said articles within said location means. The front and rear faces provide rigidity to the sleeve when erected so as to allow the spacing of the top and bottom walls and location means to be maintained and hence secure and retain the at least two articles in the sleeve during display, sale and transport. The sleeve, when erected will preferably have sufficient strength and exert a sufficient location action on the articles such that the package formed can be handled during the transport of the packages to the retail premises, loaded onto shelves for display and handled upon purchase so that the articles can only be released from the sleeve upon obvious and visible manipulation of the sleeve.

[0010] The provision of the sleeve of board material allows printed matter to be applied to the same to advertise, for example, the price of the package, provide information relating to the articles held in the package and/or any other information or advertising matter. The range of printed matter which can be applied is significantly greater than with plastics sheet material and therefore the appearance of the package with sleeve in accordance with the invention is enhanced in comparison to the conventional packages.

[0011] In a yet further aspect of the invention there is provided a method of forming a package with at least two articles in mutual location, comprising the steps of forming a sleeve blank including location means for said at least two articles and portions for the formations of front, rear, top and bottom walls and an attachment portion, with crease lines formed between the portions, characterised in that the package is formed by placing

said articles in respective location means at a first location and folding said sleeve blank around a portion of each article and about the crease lines such that when erected, a portion of each article lies within the space defined by the front, rear, top and bottom walls and attaching the portion to one of the walls to retain the sleeve in an erected condition.

[0012] Specific embodiments of the invention will now be described with reference to the accompanying drawings; wherein

Figure 1 illustrates a perspective view of a package according to the invention in one embodiment;

Figure 2 illustrates a front elevation of the package of Figure 1;

Figure 3 illustrates a side elevation of the package of Figure 1; and

Figure 4 illustrates in detail a section through the material used for the sleeve;

Figures 5-13 illustrate various embodiments of the sleeve of the invention in blank form prior to erection.

[0013] Referring firstly to Figures 1-3 there is illustrated a package 2 according to one embodiment of the invention. The package comprises, in this case, two articles in the form of cylindrical aerosol containers 4,6 each having a body 8 and cap 10, held together in mutual location by a sleeve 12, which engages with the articles. The sleeve includes location means which in this case are in the form of an aperture 14 and aperture 15 through which the cap portions 10 of the articles pass. Retaining means 16, in the form of a flap are provided and, when the articles are in position in the location means, the flap is folded to engage and lock the articles with respect to the location means 14 as shown. The sleeve is formed with spaced front and rear walls 26,28 and spaced top and bottom walls 27,29 which define a space 31 within which a portion 33 of each article is held.

[0014] Thus the package 2 formed includes the articles retained in the sleeve in such a manner that the same can be taken to retail premises, displayed and purchased without the articles being removed from the sleeve without obviously altering the integrity of the sleeve. To further increase the strength of the sleeve a portion 17 of, in this case, the rear wall portion 28, can be formed of double thickness as shown.

[0015] Figures 5-13 illustrates various sleeve blanks for use to form an erected sleeve and hence package, in accordance with the invention. The sleeve designs are altered to suit specific article shapes and weights of the same and so on but, in principle, each includes location means aperture or apertures 14 and

location means aperture or apertures 15 with retaining means 16 to lock the articles into the sleeve when formed. The sleeve blank has front wall portions 26 and rear wall portion 28 and, typically, a further portion 30 which can be folded, when the sleeve is erected, towards one of the walls such as the rear or front walls 26,28 to be adhered thereto and so form a double wall thickness portion (17).

[0016] Figure 4 illustrates that the sleeve is made from board material which comprises first and second outer layers 18,20 which are spaced apart by a corrugated layer 22 which contacts at spaced intervals with both the outer layers as shown. It is found that this arrangement of the board material allows the strength to thickness ratio of the material to be greatly enhanced in comparison to the single ply board material. With conventional single ply material the strength requirements for the sleeve mean that a material of greater thickness and hence cost is required which can be uneconomical.

[0017] The sleeves can have any form of conventional printed material applied thereto to enhance the package design and so there is provided in accordance with the invention a sleeve which allows a multi-article package to be provided with the sleeve incorporating the use of a particular type of material which is environmentally friendly and allows a reduction in the use of the damaging plastics sheet material while ensuring that the integrity of the package is maintained.

Claims

1. A package (2) for holding at least two articles (4, 6) in mutual location by a sleeve (12) said sleeve having location means (14, 15) for each of said articles (4, 6) said sleeve (12) formed from board material and characterised in that said sleeve is formed with spaced front and rear walls (26,28), linked by spaced top and bottom walls (27,29), said location means formed in at least one of the walls, and a portion (33) of each of the articles lies within the space (31) defined by the front, rear, top and bottom walls.
2. A package according to claim 1 characterised in that the sleeve is formed of corrugated board material, which material is formed from first and second spaced outer layers (18, 20) of sheet material each having an inner face which contacts at spaced intervals with a corrugated shaped layer of board (22).
3. A package according to claim 2 characterised in that the corrugated shaped layer of board (22) is adhered to the inner faces of the first and second outer layers (18, 20).
4. A package according to claim 1 characterised in that the location means (14, 15) are in the form of an aperture or apertures.

5. A package according to claim 4 characterised in that the location means are formed in the spaced top and bottom walls of the sleeve.
6. A package according to claim 1 characterised in that retaining means (16) are provided which serve to retain the articles in the location means. 5
7. A package according to claim 1 characterised in that at least a portion (17) of one of the walls of said sleeve is formed of double thickness material. 10
8. A package according to claim 7 characterised in that said portion (17) is formed by attaching a portion (30) of the sleeve blank to one of the walls to form and retain the sleeve in the erected position. 15
9. A sleeve blank for a package (2) for holding at least two articles (4, 6) in mutual location, said sleeve blank including location means (14, 15) for said at least two articles (4, 6), characterised in that said sleeve blank includes portions for spaced top and bottom walls (27,29) and portions for front and rear walls (26, 28) so that when said sleeve blank is erected, a portion (33) of each of the articles can be located within the space (31) defined between the front, rear, top and bottom walls and held in position by the location means (14,15). 20 25
10. A sleeve according to claim 9 wherein said sleeve is made from corrugated board material formed from sheet material in a corrugated shape (22) between first and second layers of sheet board material (18, 20). 30 35
11. A sleeve blank according to claim 10 wherein a portion (30) is provided and attached to one of the walls when said sleeve blank is erected to form a double wall thickness portion (17) and retain the sleeve blank in the erected condition. 40
12. A method of forming a package with at least two articles (4, 6) in mutual location, comprising the steps of forming a sleeve blank including location means (14, 15) for said at least two articles (4, 6) and portions for the formations of front, rear, top and bottom walls (26,28,27,29) and an attachment portion (30) with crease lines formed between the portions, characterised in that the package is formed by placing said articles in respective location means at a first location and folding said sleeve blank around a portion of each article and about the crease lines such that when erected, a portion (33) of each article lies within the space (31) defined by the front, rear, top and bottom walls and attaching the portion (30) to one of the walls to retain the sleeve in an erected condition. 45 50 55
13. A method according to claim 12 characterised in that the articles are placed in contact with location means at a second location during the erection of the sleeve.
14. A method according to claim 12 characterised in that when the sleeve is erected retaining means (16) formed in the sleeve blank are moved into position to lock the articles in the location means.

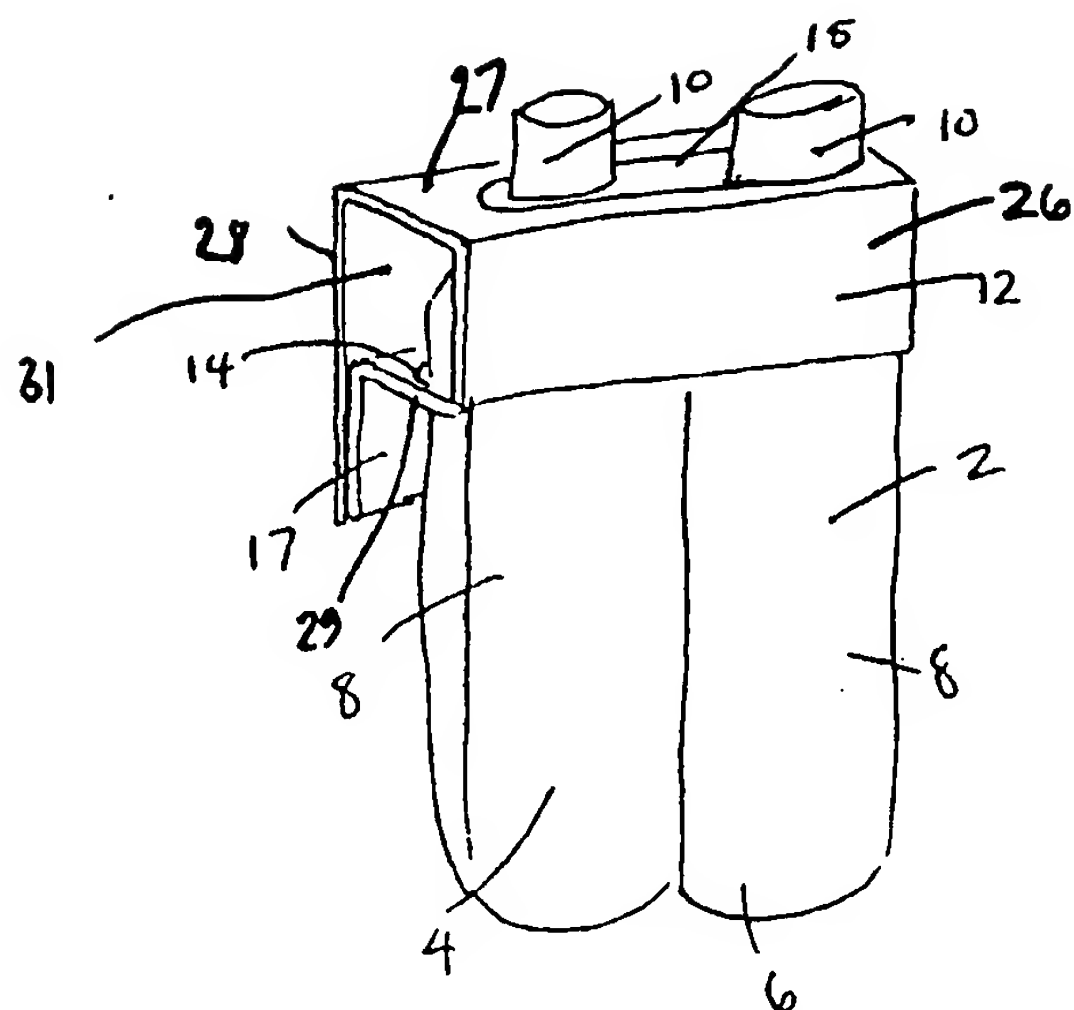


Figure 1

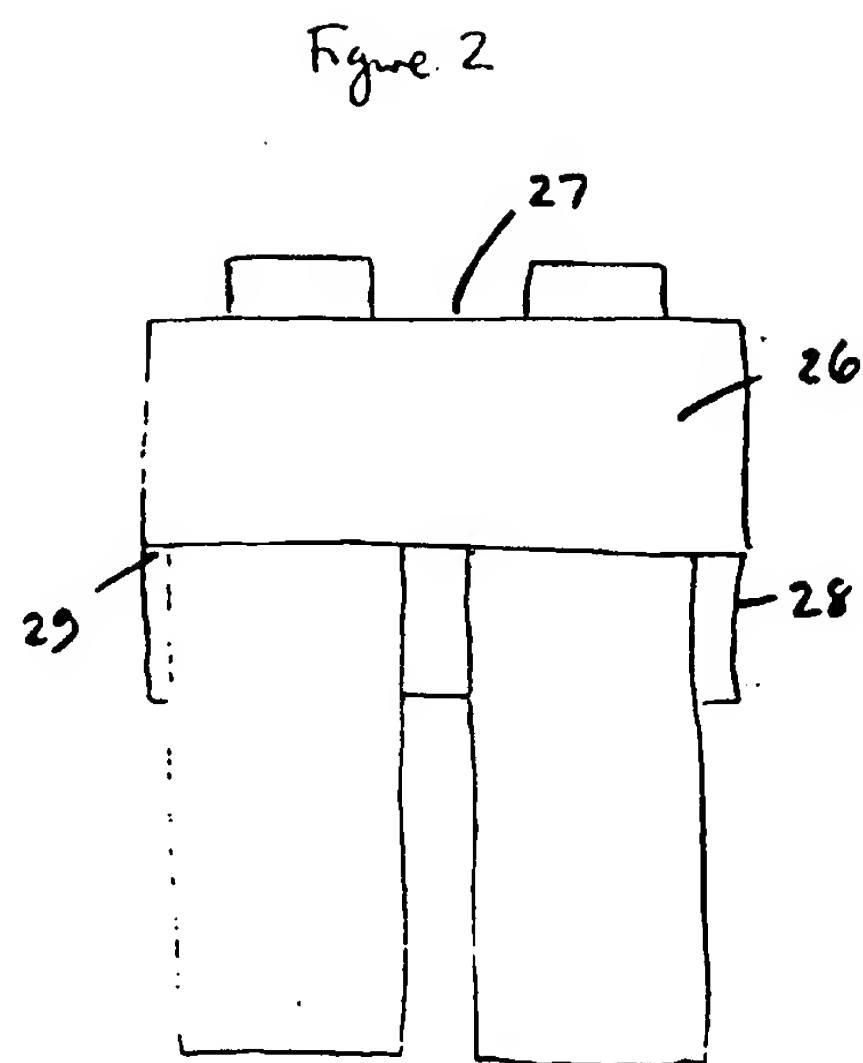


Figure 2

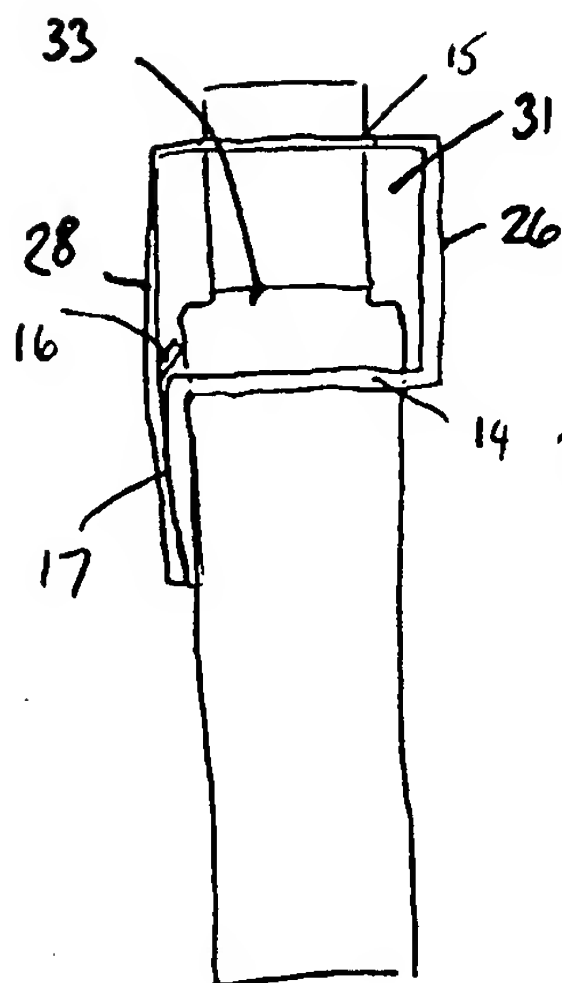


Figure 3

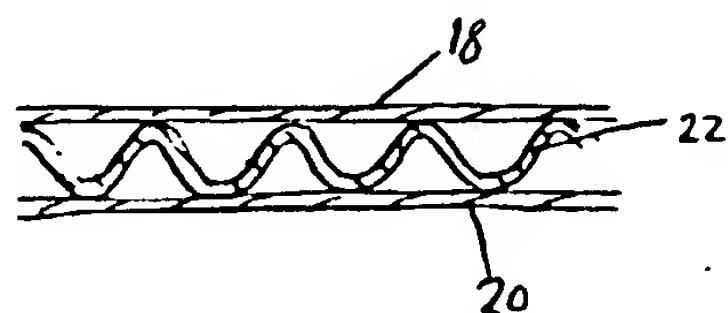
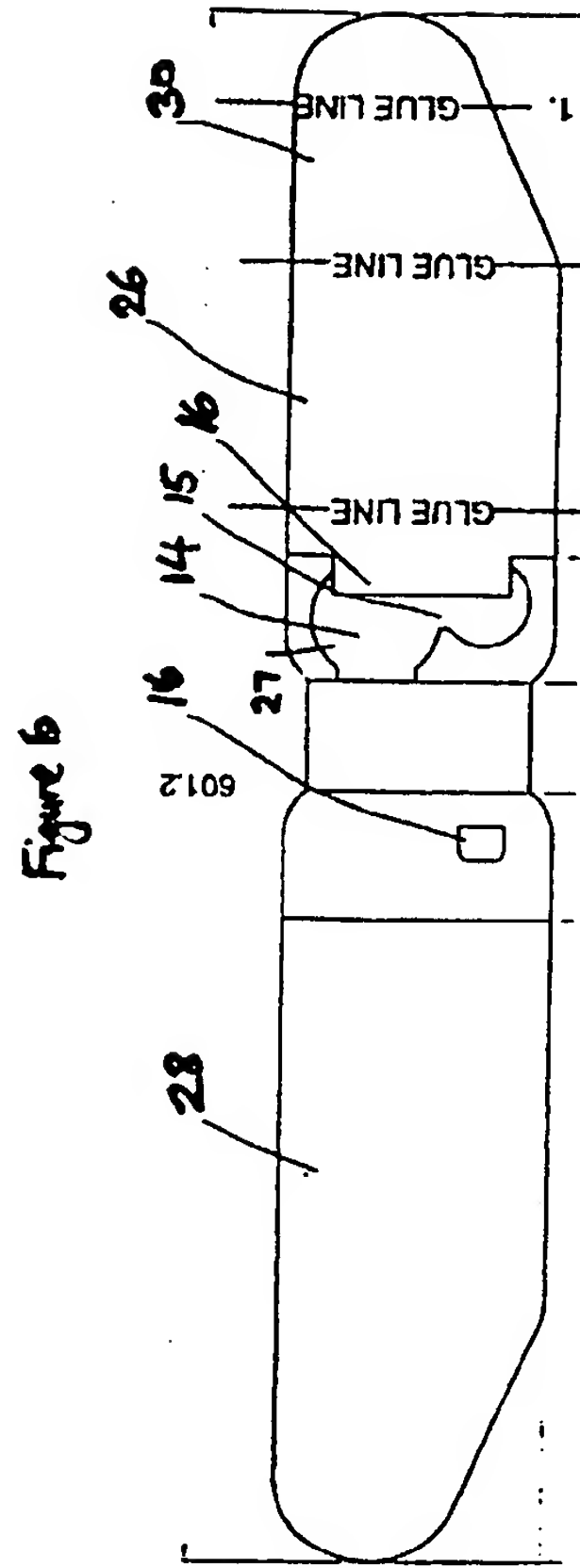
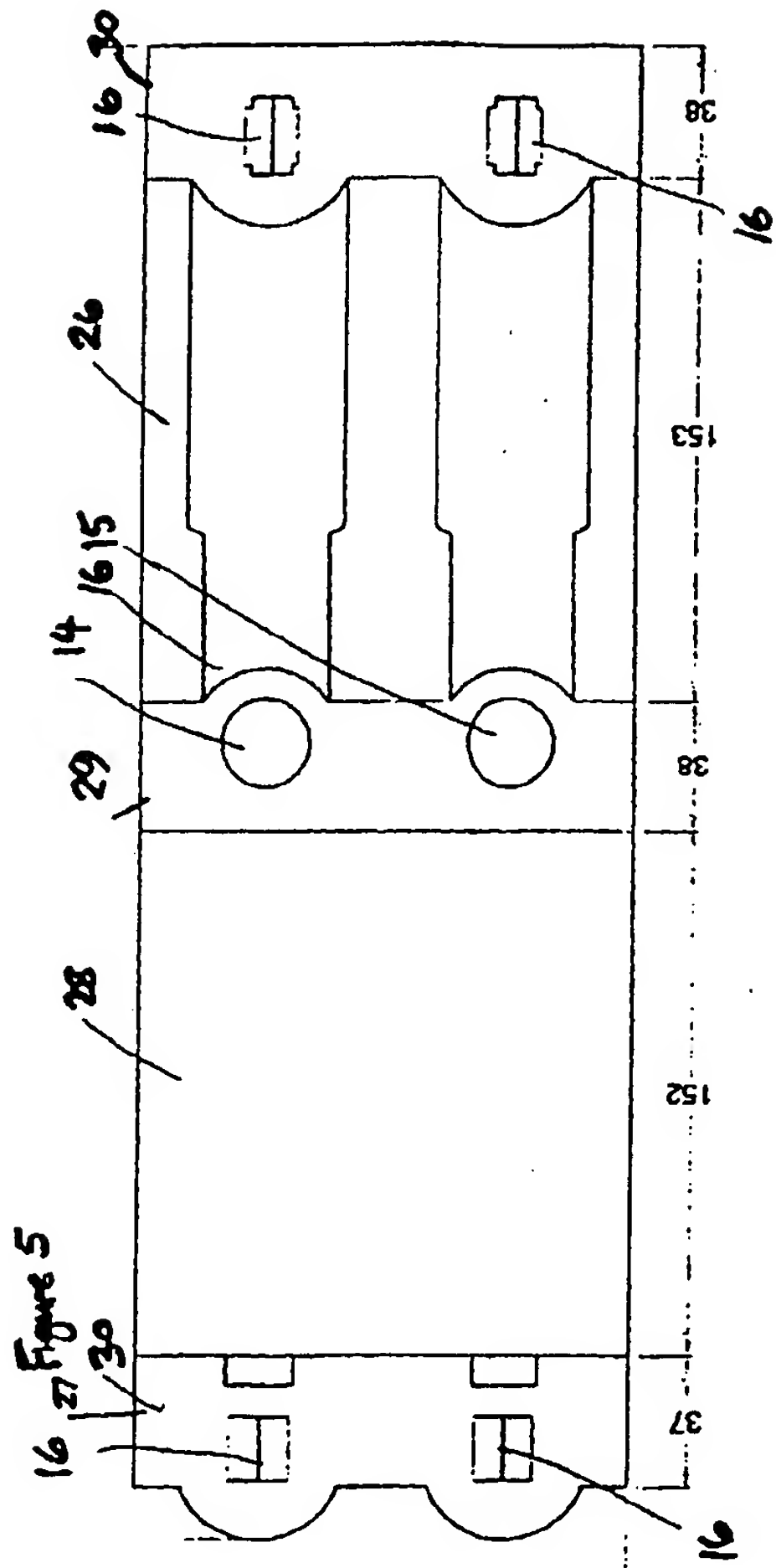
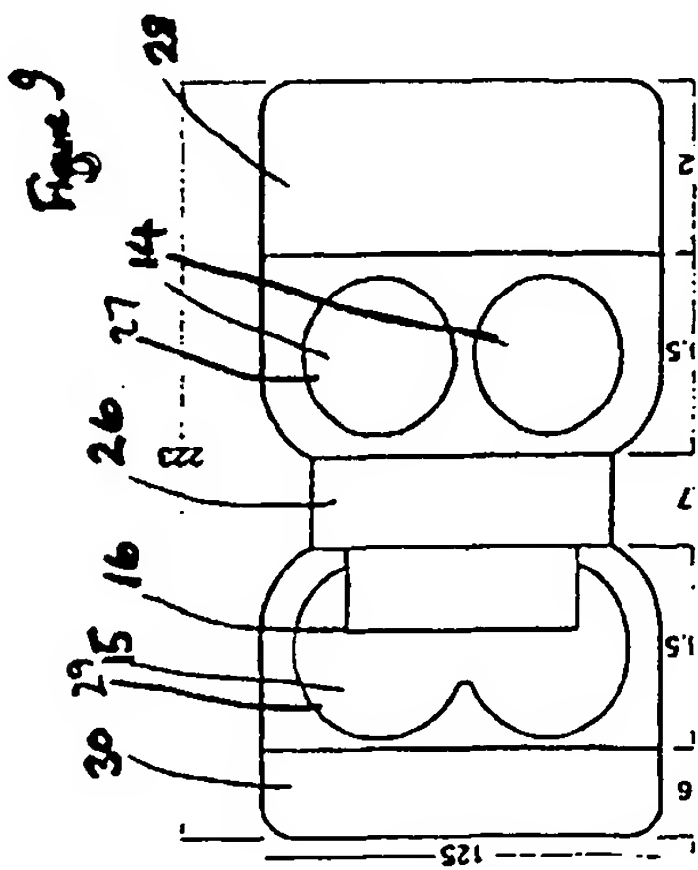
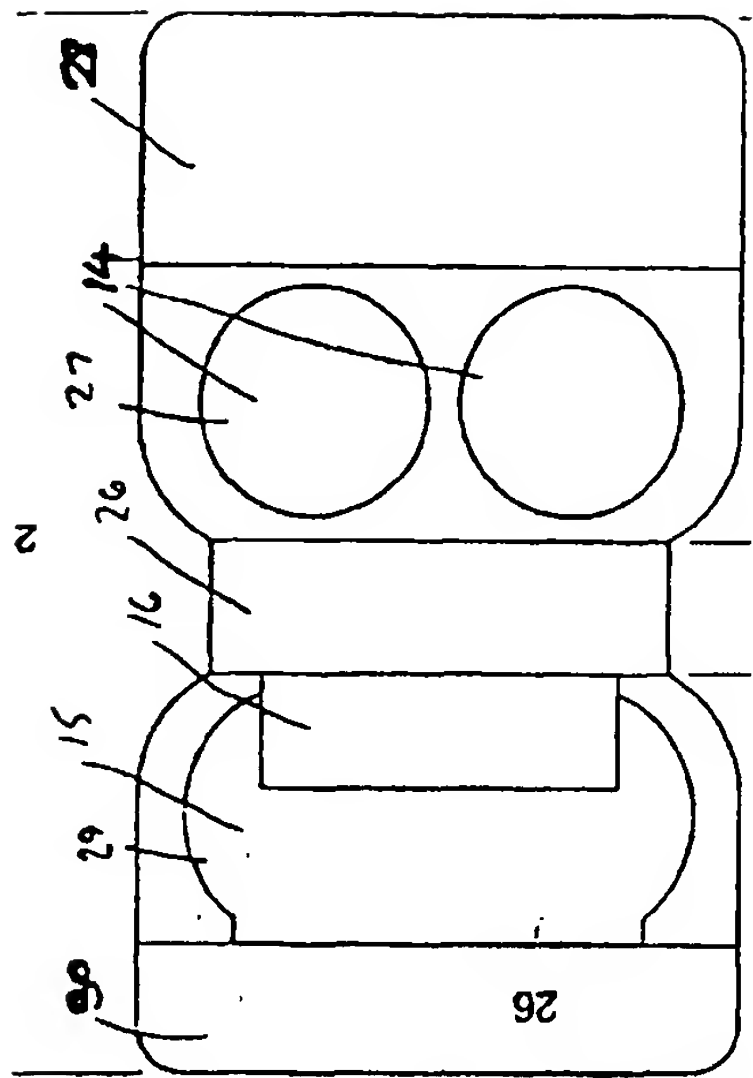
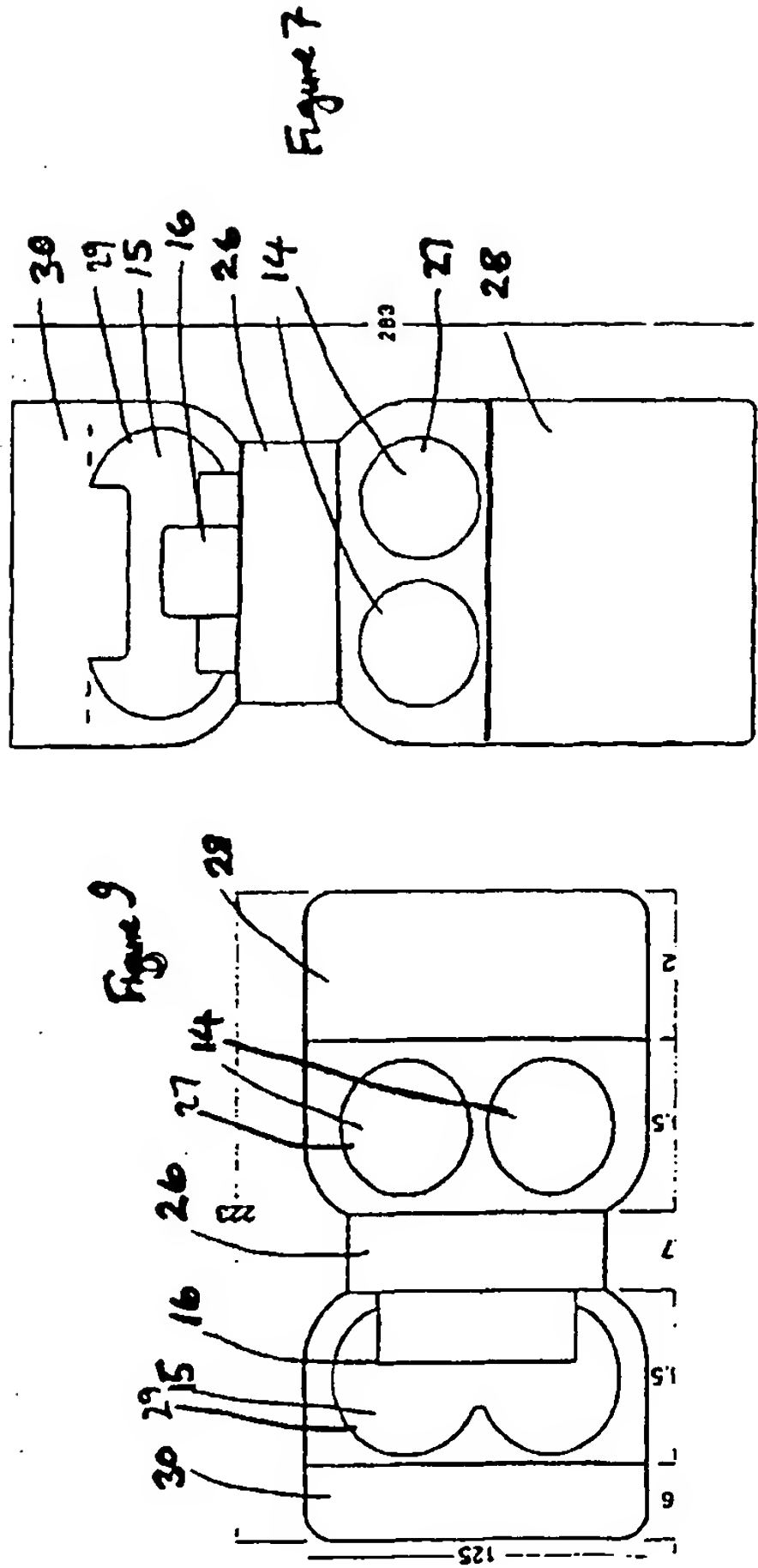


Figure 4





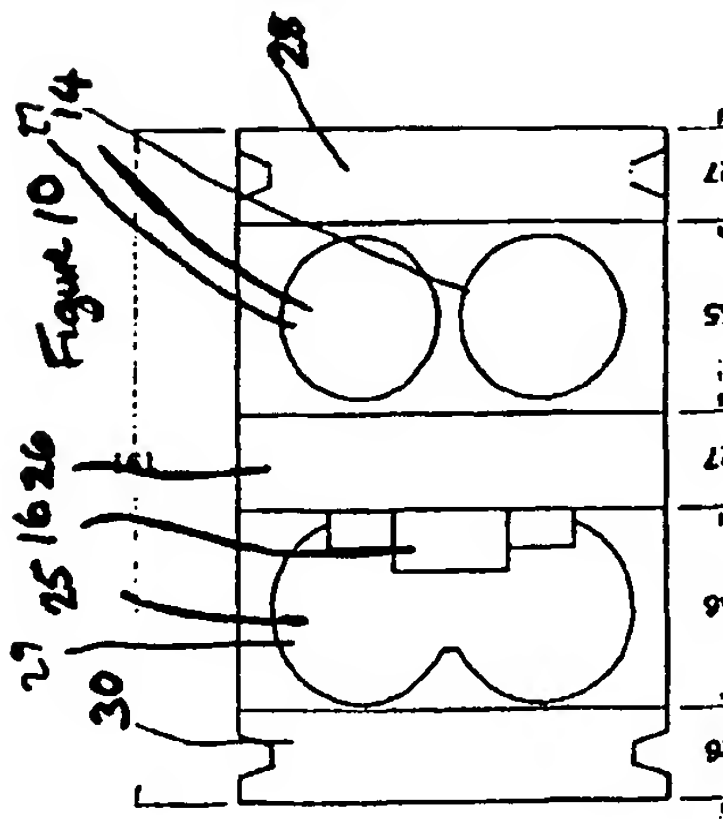
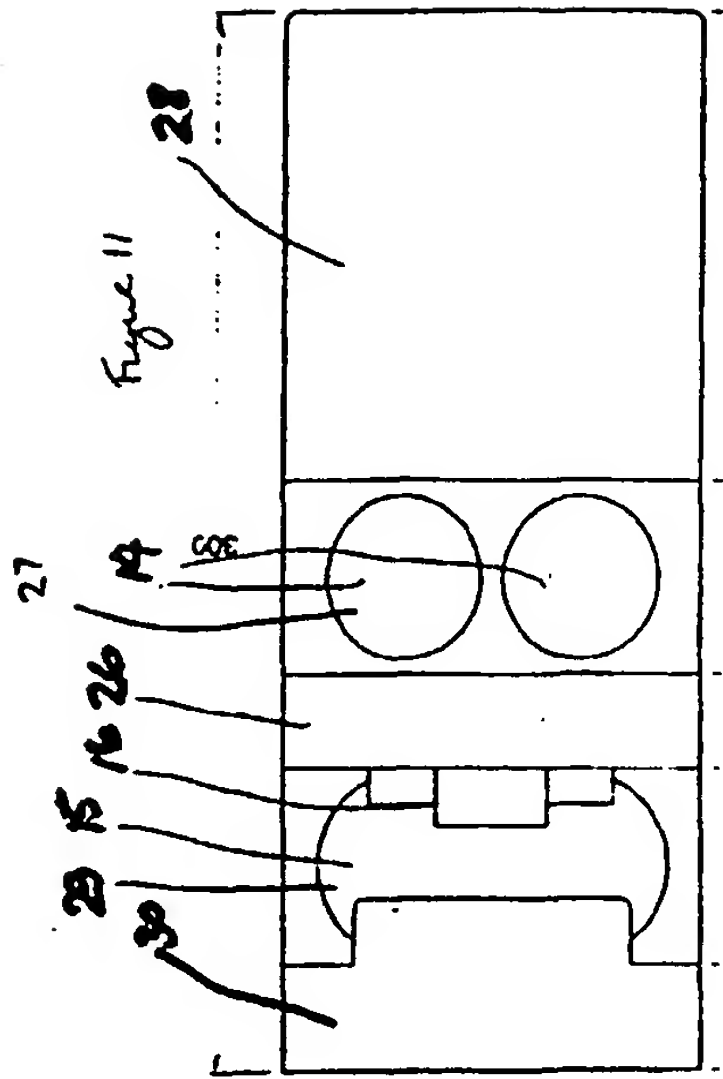
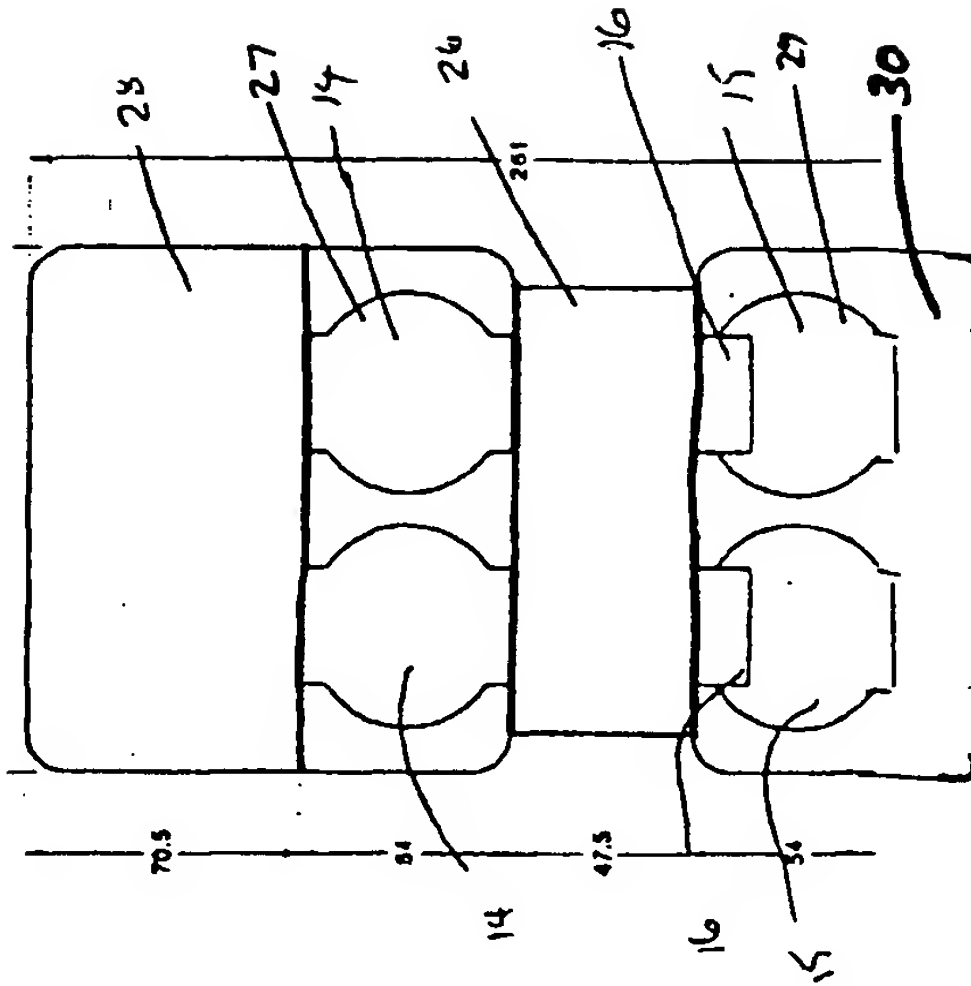
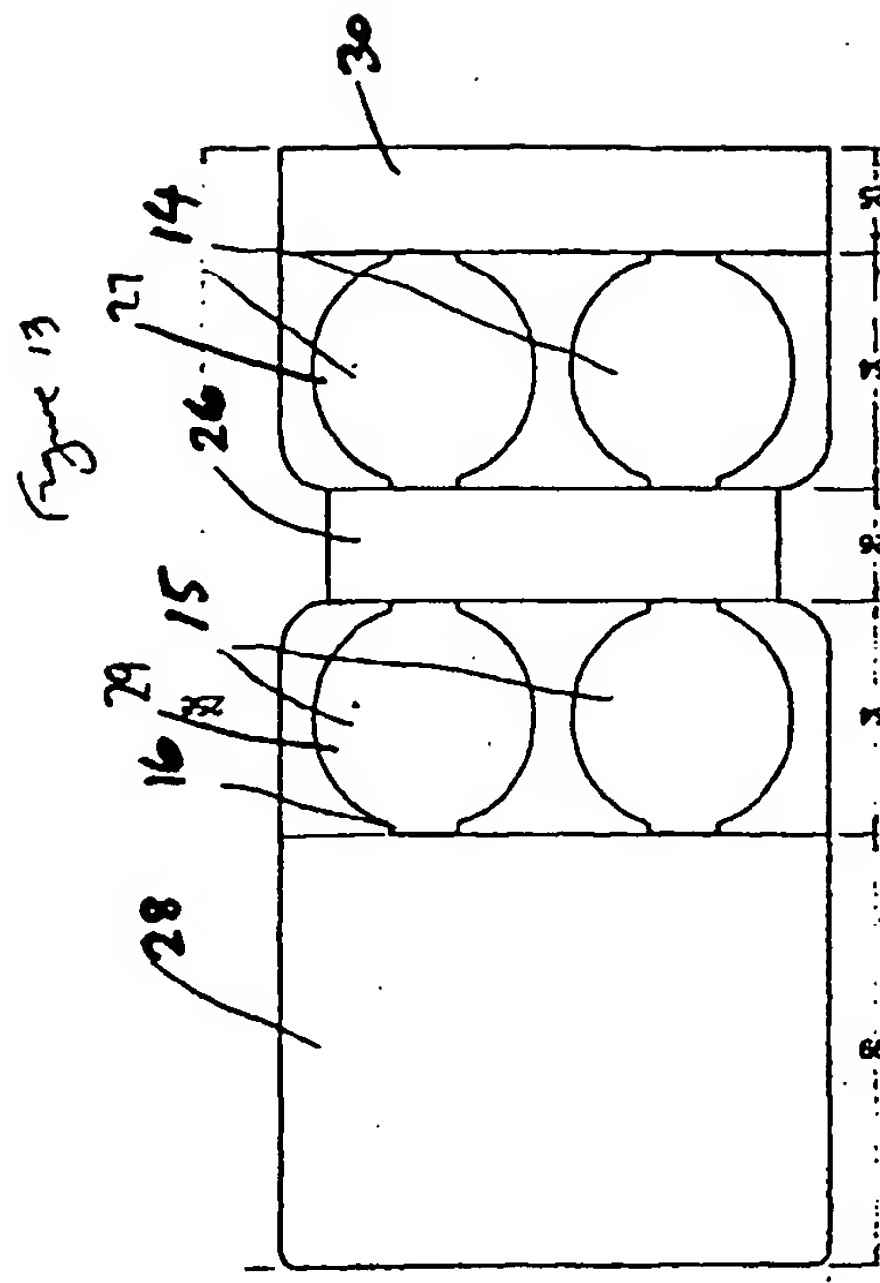
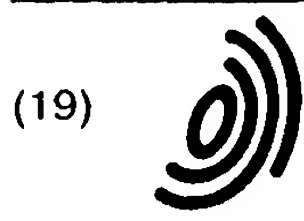


Figure 12







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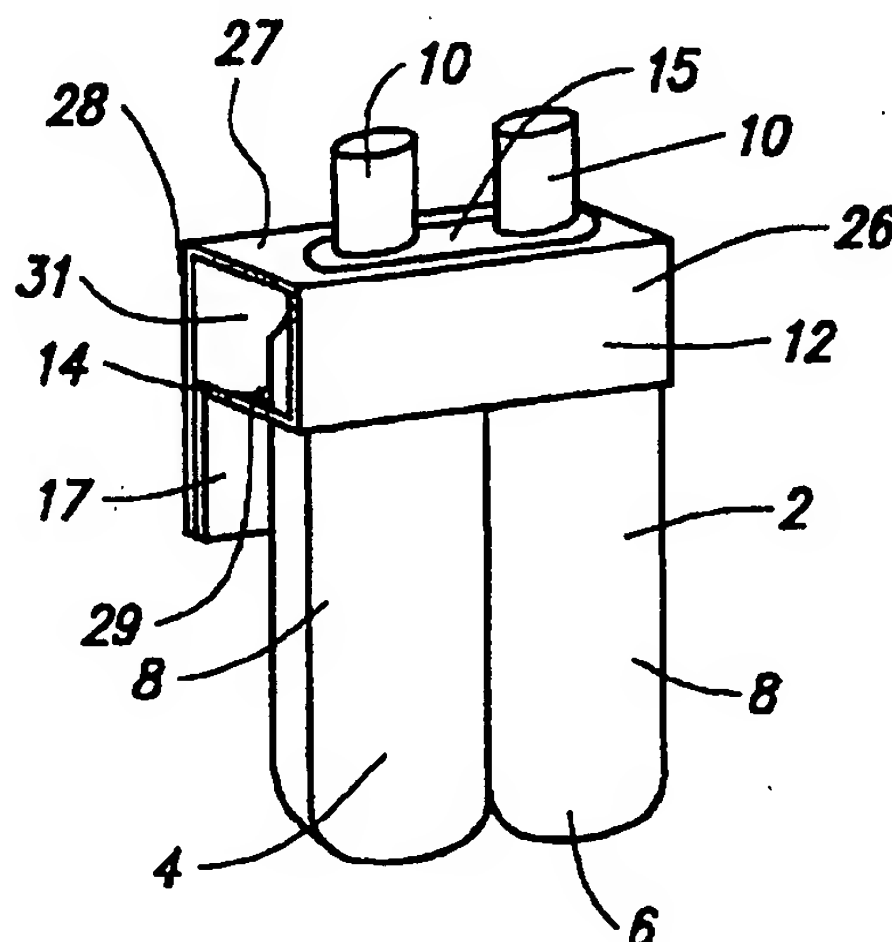


FIG. 1

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European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 99 12 0610

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 5 598 920 A (HANSEN FINN R) 4 February 1997 (1997-02-04) * abstract * * column 4, line 1-10 * * column 6, line 31 - column 7, line 22 * * column 8, line 52 - column 9, line 19; figures 1-11 *	1-14	B65D71/46
X	US 3 640 563 A (WOOD PRENTICE J) 8 February 1972 (1972-02-08) * the whole document *	1,4,5, 7-9	
A	US 5 284 294 A (FLOYD ROY V) 8 February 1994 (1994-02-08) * column 14, line 61 - column 15, line 3; figure 2B *	2,3,10	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B65D
Place of search		Date of completion of the search	Examiner
THE HAGUE		2 November 2000	Balz, O
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EP 99 12 0610

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